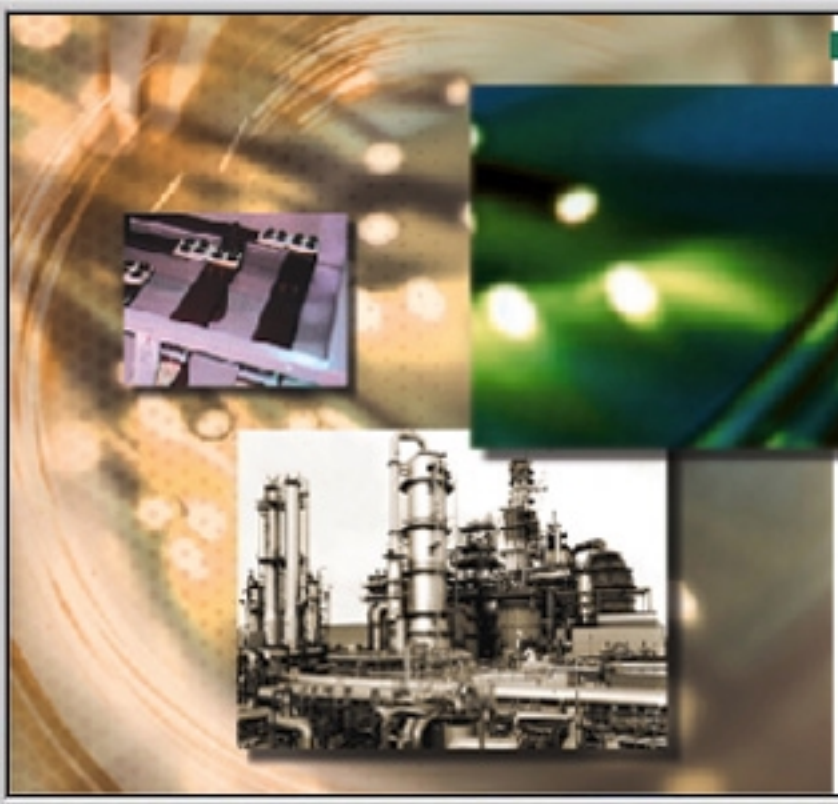
LG Metal-Enclosed BusDuct



- 5kV-38kV Class
- 600 Volt Class

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LG Industrial Systems

LG METAL-ENCLOSED NON-SEGREGATED PHASE

INDOOR OR OUTDOOR BUS DUCT

600 Volt Class, 5kV- 38kV Class

INSULATION LAYERS

The entire integrated insulation system exhibts:

- Excellent Track Resistance.
- Frame Retardancy.
- High Impact Resistance.
- High Strength.
- Low Power Factor up to 105°C.
- Medium-voltage bus bars are covered with a flam retardant insulation having a sufficient thinkness to stand full line voltage for the rating of the equipment.
  600V bus bars are supported by polyester material.
  5kV bus duct features molded polyester glass channels as insulation for supporting current carrying members.
  15kV features wet process porcelain insulators.
  38kV features cast cycloaliphatic epoxy insulators.
  All of these materials completely isolate the current carring members from ground.

BUS JOINTS

All bus joint coctact areas are silver plated to assure proper conductivity and to prevent electro-chemical degradation in normal service atmospheres.
Provisions for thermal expansion, as well as dissimilar coefficients are an inherent part of t he bus joint design.

TORQUED BOLT ASSEMBLY

All current-carrying parts are assembled with high-strenght steel bolts. torqued to assure electrical integrity for the life of the equipment.
Vibration, dust and humidity do not affect this electrical connection after it has been properly assembled.

HEATER (not shown)

Heaters are generally used where a high humidity environment is anticipated, either indoor or outdoor.
120V heaters are spaced as required to prevent condensation in the bus duct and preserve the electrical integrity.
Standard on outdoor equipment.

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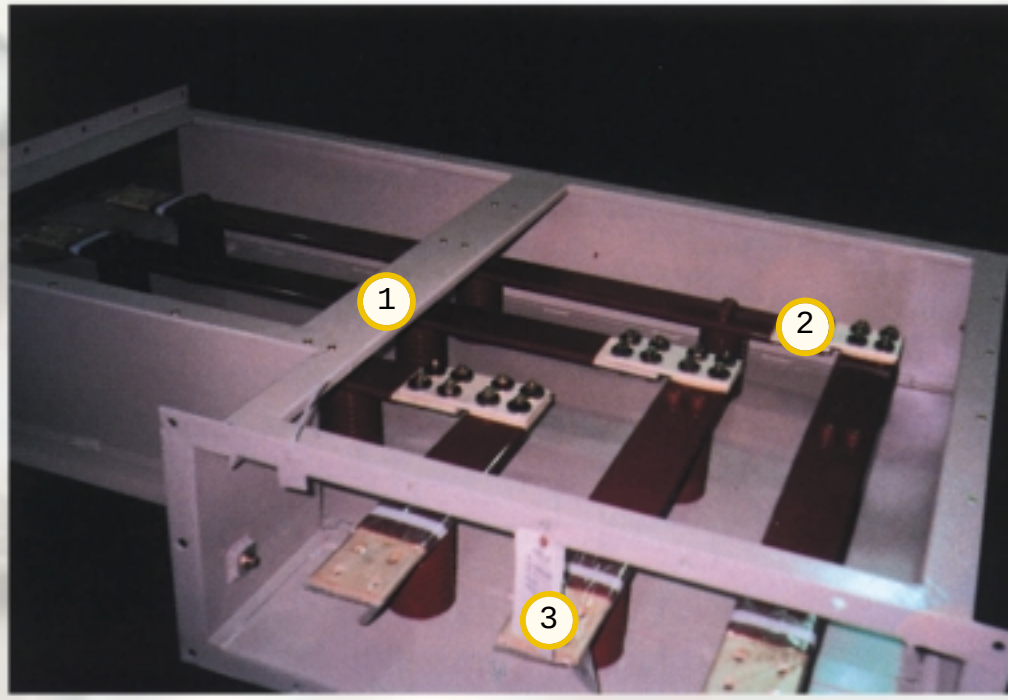

METAL ENCLOSURE

Bus duct is constructed of high grade steel of alumiunm sheet metal-the specific material determined by the current rating and maximum permissible conductor and enclosure temperature rises. Each individual section is formed and welded for optimum strenght. After construction and prior to assembly each individual member is painted by immersion in an electrodeposition epoxy base paint system in which the paint is bonded to the metal in a manner similar to electroplating. Outdoor duct is painted with an additional coat for even greater corrosion resistance.

ELECTRICAL BONDING BETWEEN ADJACENT BUS DUCT SECTIONS

Bus duct enclosure joints are designed to form a sound electrical bond between adjacent enclosure sections. Specificallt, the enclosure and enclosure joints are designed to safety conduct the rated short-circuit current of the associated protective device for a period of 2 seconds. This designed complies with the grounding requirements of ANSI, NEC, NEMA and the IEEE.

CONDUCTOR

High-conductive aluminum bus bar assures low power loss. All copper and aluminum bars with bolted connections are silver-plated to insure a high-integrity electrical joint. 38kV aluminum bus bar is welded. Copper conductor material is available as an option when the purchaser(user)requires it for his application In some specific application, cooper bus bar is standard.

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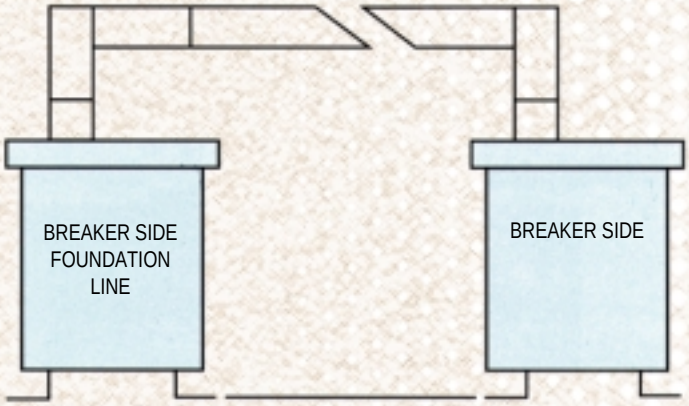
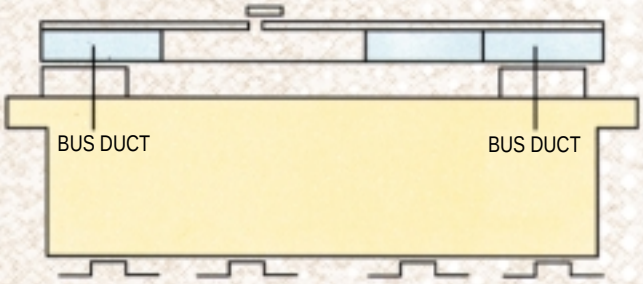
5kV- 38kV Class

TYPICAL OUTDOOR NON WALK-IN SWITCHGEAR CONNECTIONS



3000A CROSS-OVER BUS DUCT, OUTDOOR WALK-IN, DOUBLE ROW



NOTE : For 1200 or 2000 Ampacityy, bus can be located inside walk-in housing. Consult nearest District Office.

DIMENSIONS & WEIGHTS

kV	H(outdoor)	H(outdoor)	W	A	B	Amps	Awt/ft 3
5	13 1/8	13 3/8	26	6	7	1200	52
						2000	74
	19 9/16	19 3/4	36	8	10	3000	82
						4000	74
5	15 9/6	15 3/4	36	8	10	1200	82
						2000	91
	20 3/16	20 3/8	42	9	12	3000	135
						4000	85
38	24 3/16	24 3/8	48	10	14	2000	105
						3000	125

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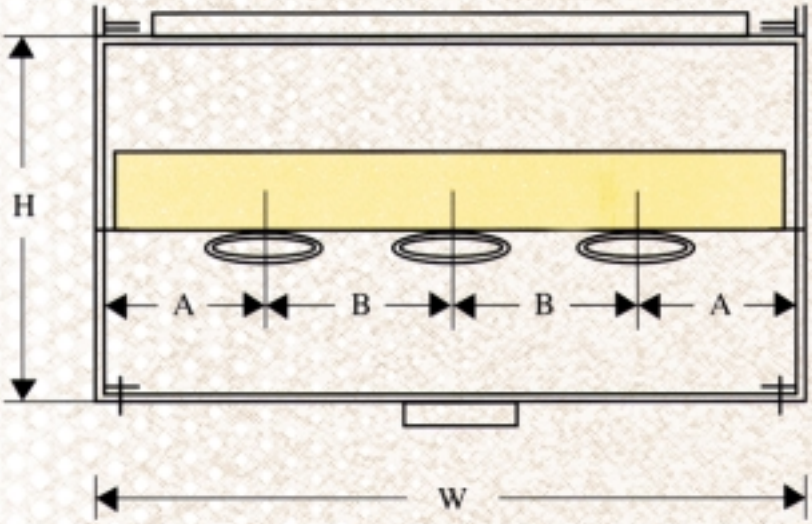
3000A CROSS-OVER BUS DUCT,
OUTDOOR WALK-IN, DOUBLE ROW

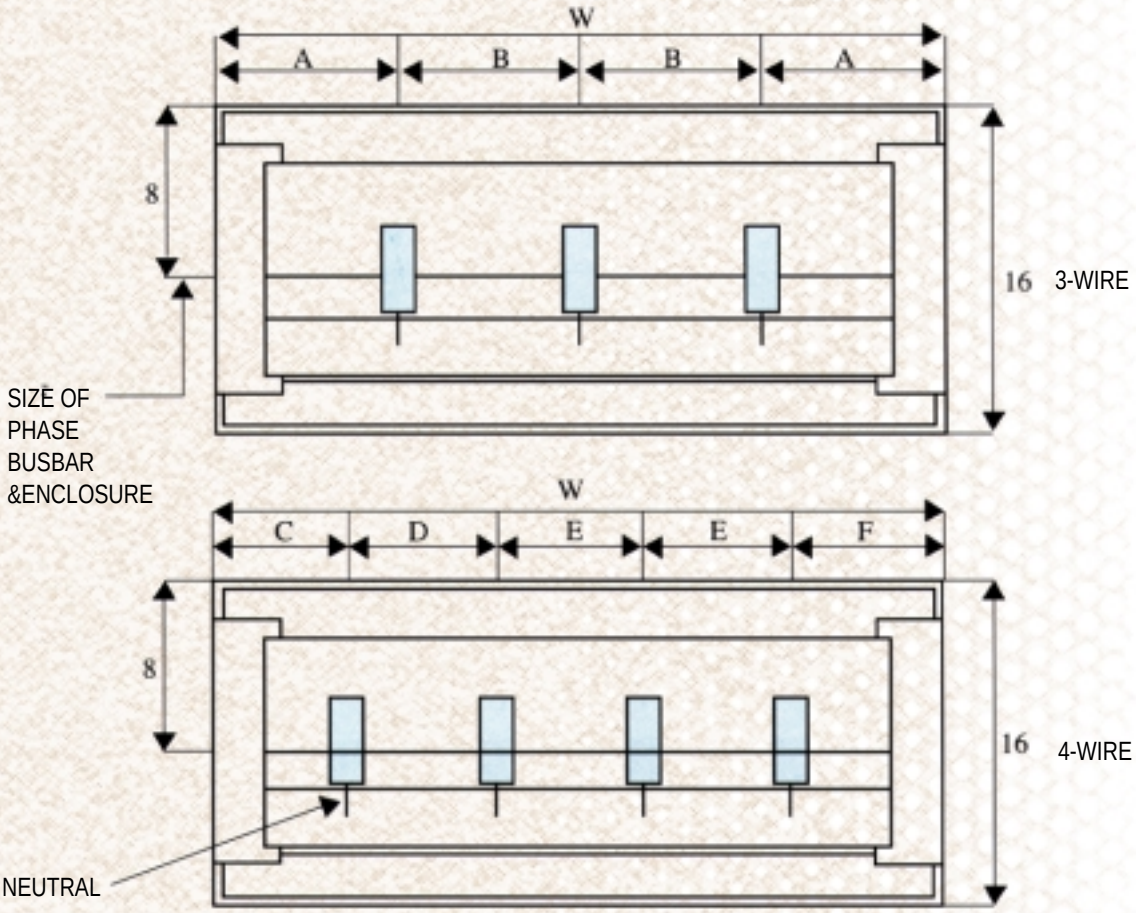


NON SEGREGATED PHASE BUS DUCT TECHNICAL DATA

Nominal System Voltage,	Bus Duct Nominal Voltage,	Bus Duct Maximum Voltage,	Comtinuous Current,A	Momentary Current Rating, kA	Insulation Level, kV		Bus Duct Conductor Temperature Rise, (over 40 ℃ambient)
					Power Frequency Withstand, Rating, kA	Impulse Withstand, (BIL)	
600	600	635	600~1600	75			
600	600	635	2000~3000	100	2.2	–	65
600	600	635	4000~5000	150			
2,460 4,160	4,160	4,760	1200~1400	19	19	60	65
7,200 13,800	13,800	15,000	1,200	to 78	36	95	65
34,500	34,500	38,000	2000~3000	58	80	150	65

600 Volt Class

TYPICAL SECTION VIEW



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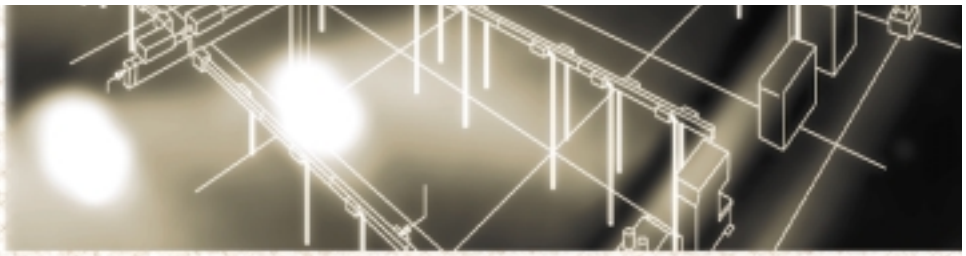

INDOOR-OUTDOOR 600-5000Amperes

Type	Dimensions						
	W	A	B	C	D	E	F
3-WIRE	22	6	5	-	-	-	-
4-WIRE 50% 100% Neutral	27	-	-	6	5	5	6
4-WIRE Split Phase 50% Neutral	39	-	-	6	9	9	8
4-WIRE Split Phase 100% Neutral	43	-	-	8	9	9	8
3-WIRE Split Phase	34	8	9	-	-	-	-

For widths 27" and lower, Ampacity maximum is 2500.
From 34" to 43", Ampacity maximum is 3000.

WEIGHTIS

Capacity (Amps)	Weights (lbs3 Phase Ft)					
	Aluminum Bus			Copper Bus		
	3Wire	4Wire 50% Neut.	4Wire 50% Neut.	3Wire	4Wire 50% Neut.	4Wire 50% Neut.
600	40	45	45	44	50	50
800	41	46	46	48	54	55
1000	41	46	47	46	53	54
1200	41	46	48	49	56	58
1600	46	51	53	55	63	66
2000	42	46	48	62	69	76
2500	50	56	59	70	78	86
3000	63	69	77	85	95	107

*For 4000 and 5000 Ampere Ratings refer to nearest District Office.

Housing Material & Thinkness

Housing Material & Thinkness is 11 gauge steel for 3 or 4 wire split phase, all others 12 gauge Removable cover is 1/8" aluminum for 2000 amperes and over, 12 gauge steel for 1600 ampere under.

LG constantly endeavors to improve
our products, so that information
in this catalog is subject to
change without notice.

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